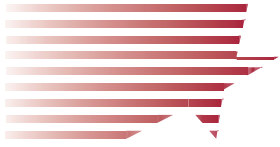


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# **Next Generation Internet Briefing to the Internet Caucus**

**June 13, 1997**

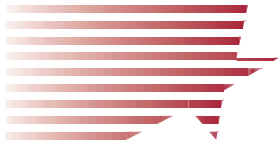
**John C. Toole  
Director, NCO for CIC  
(703) 306-4722**



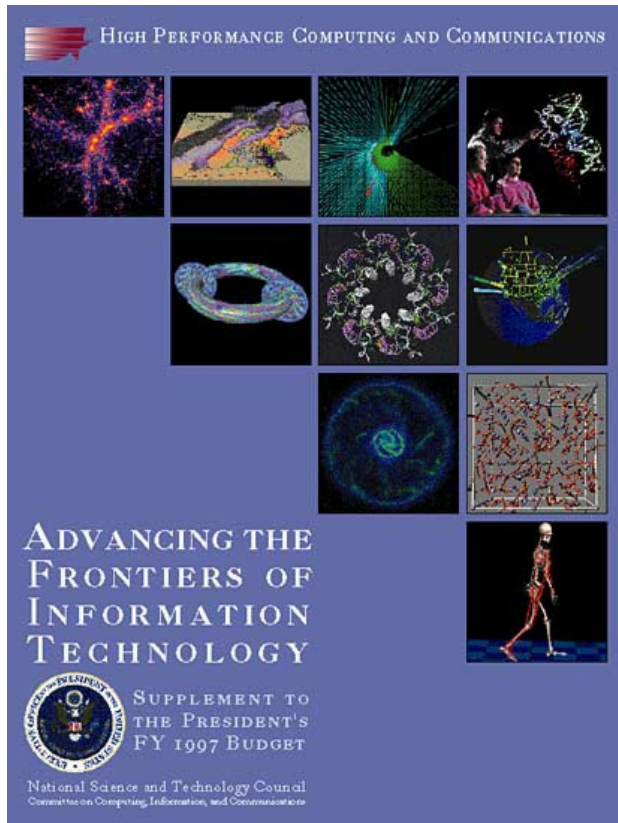
# Presentation Overview

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- Overview and Vision
  - Overview of Session (John Toole, NCO)
  - Administration's Vision and Approach (Tom Kalil, NEC)
  - Vision for the Future (Raj Reddy, CMU)
- Partnerships and Programs
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- Questions/Discussion



# National Coordination Office for Computing, Information, and Communications

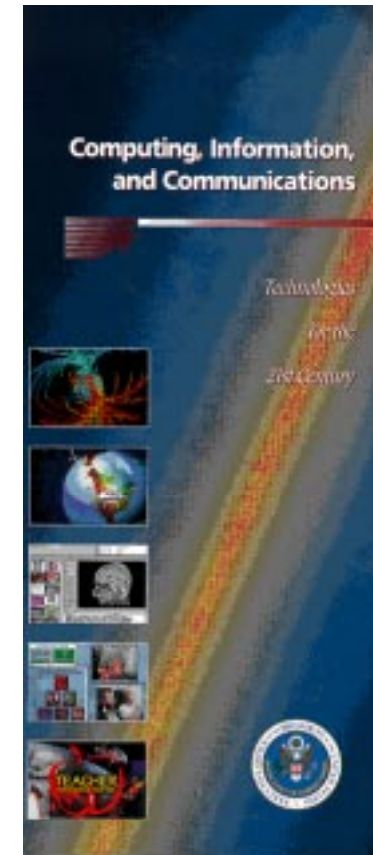


FY 1997 Blue Book

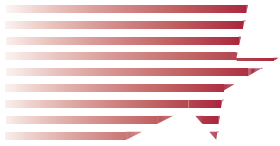
- Supports CCIC and its interagency R&D programs
- Coordinates preparation of planning, budget, and assessment documents
- Central point of CCIC contact to U.S. Congress, Federal agencies, state and local organizations, academia, industry, and the public
- All interagency publications and information available at:

<http://www.hpcc.gov>

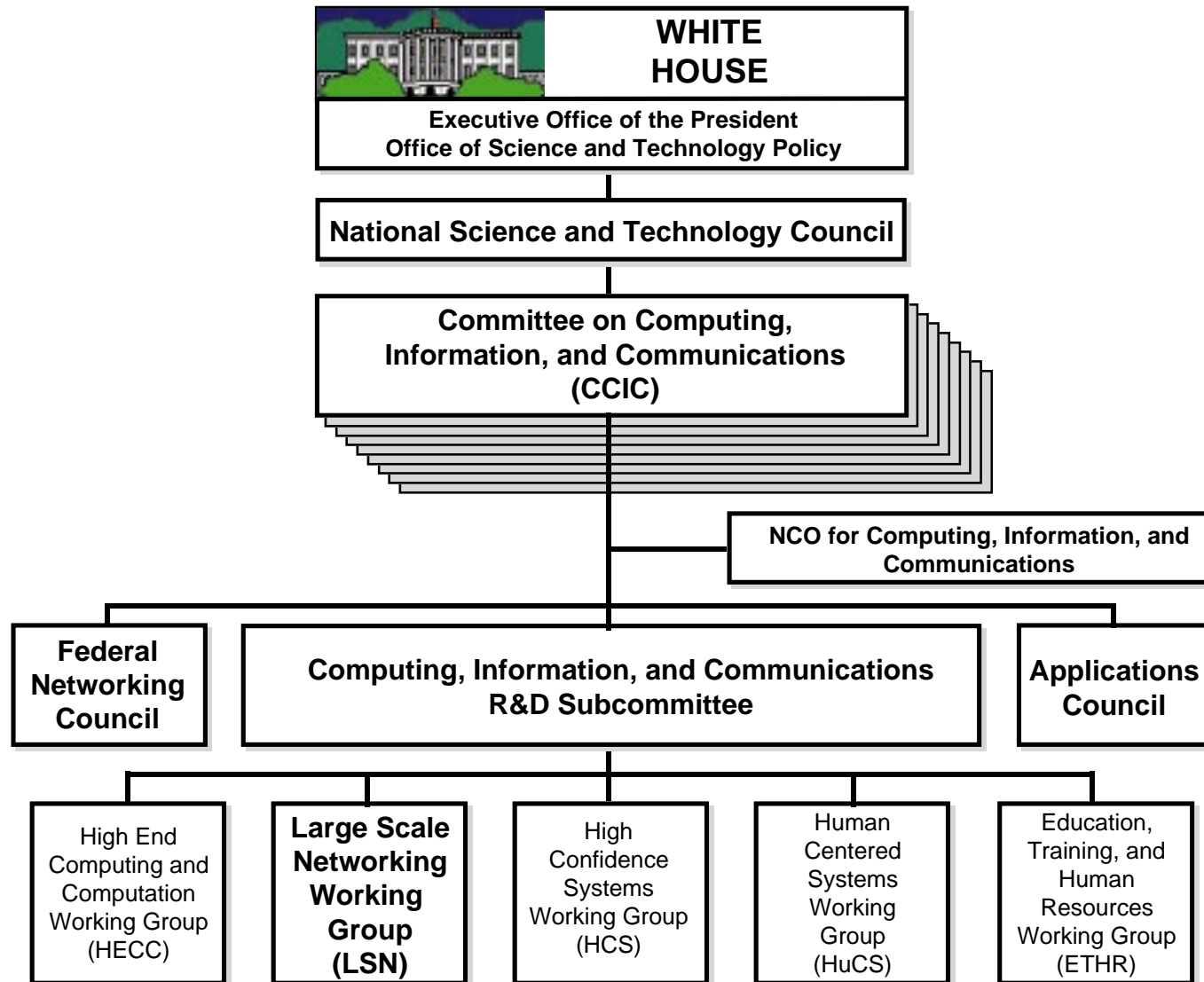
<http://www.ngi.gov>

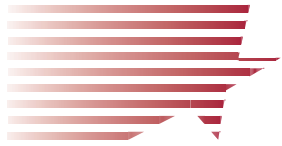


FY 1998 Brochure



# Organizational Structure

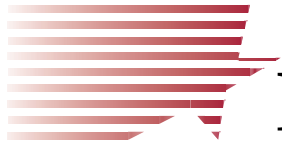




# Presidential Advisory Committee

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- President Clinton signed an Executive Order in February to establish the Advisory Committee on High Performance Computing and Communications, Information Technology, and the Next Generation Internet
  - 21 appointed, non-Federal members, including community representatives from research, education, and libraries; network providers; and critical industries
  - Provides the National Science and Technology Council, through the Director of OSTP, with advice and information on high-performance computing and communications, information technology, and the Next Generation Internet
- Discussion Forums
  - First meeting held February 27-28, 1997
  - Next meeting June 24-26, 1997
    - Agenda will focus on NGI status, Internet 2, high end investments, and future technology issues
    - June 26th anticipated to be Subcommittee meetings
  - October meeting anticipated
- NGI Related Activities
  - Weekly teleconference calls and Subcommittee meetings
  - Letter Report delivered May 30, 1997



# Presidential Advisory Committee Members

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**Co-Chairs:** *Bill Joy, Sun Microsystems*  
*Ken Kennedy, Rice University*

**Eric A. Benhamou, 3Com Corporation**

**Vinton Cerf, MCI Communications**

**Ching-chih Chen, Simmons College**

**David Cooper, Lawrence Livermore  
National Laboratory**

**Steven D. Dorfman, Hughes  
Telecommunications and Space  
Company**

**Robert Ewald, Cray Research**

**David J. Farber, University of  
Pennsylvania**

**Sherrilynne S. Fuller, University of  
Washington**

**Hector Garcia-Molina, Stanford  
University**

**Susan L. Graham, University of  
California, Berkeley**

**James N. Gray, Microsoft Research**

**W. Daniel Hillis, Walt Disney  
Imagineering**

**David C. Nagel, AT&T Labs**

**Raj Reddy, Carnegie Mellon University**

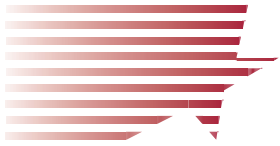
**Edward H. Shortliffe, Stanford University  
School of Medicine**

**Larry Smarr, National Center for  
Supercomputing Applications**

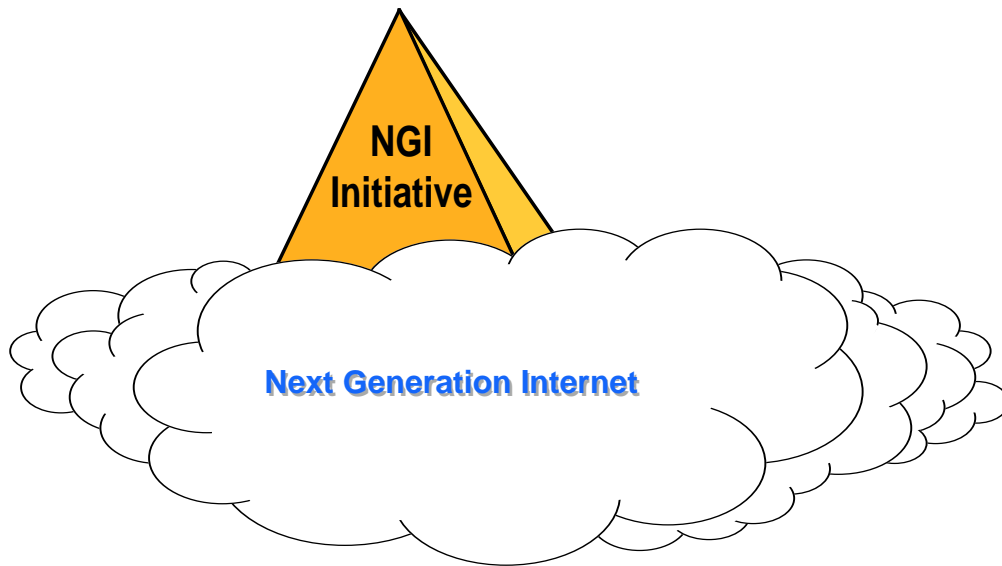
**Leslie Vadasz, Intel Corporation**

**Andrew J. Viterbi, QUALCOMM  
Incorporated**

**Steven J. Wallach, Hewlett-Packard,  
Convex Technology Center**



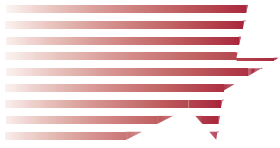
# The NGI Vision



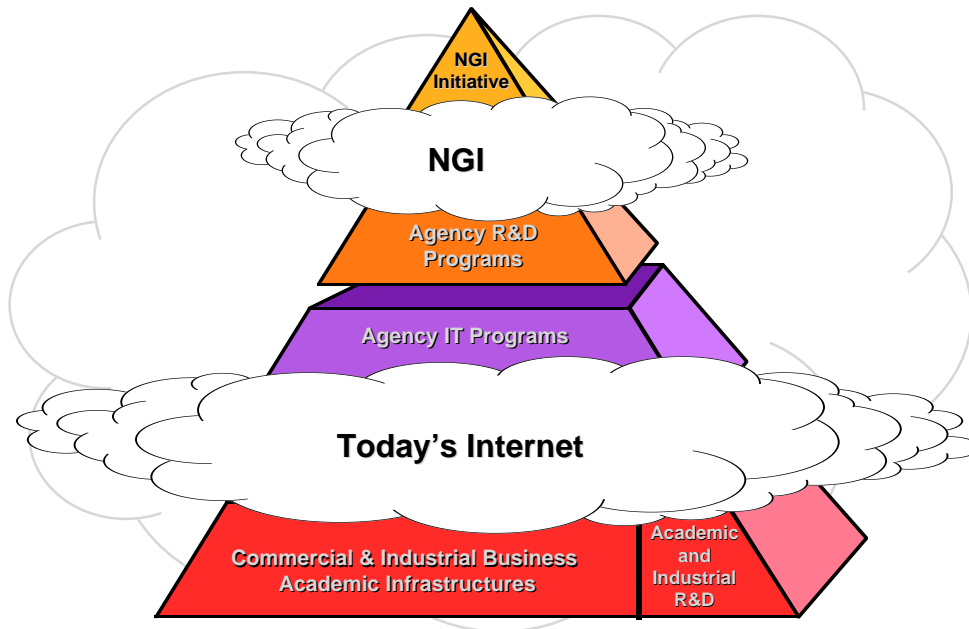
- A 21st century, integrated and global capability achieved through government, academic, and industry partnerships and interactions
- A powerful, bipartisan vision that **MUST** be rooted in real initiatives, programs, and the rapidly changing environment

The Next Generation Internet will:

- Accelerate mission critical and time sensitive research for Federal technology programs
- Expedite the introduction of advanced networking services and applications
- Ensure and strengthen the technological and scientific leadership of the United States
- Foster stronger technology research partnerships among government, academia, and industry

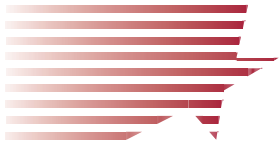


# NGI: “The Programs”

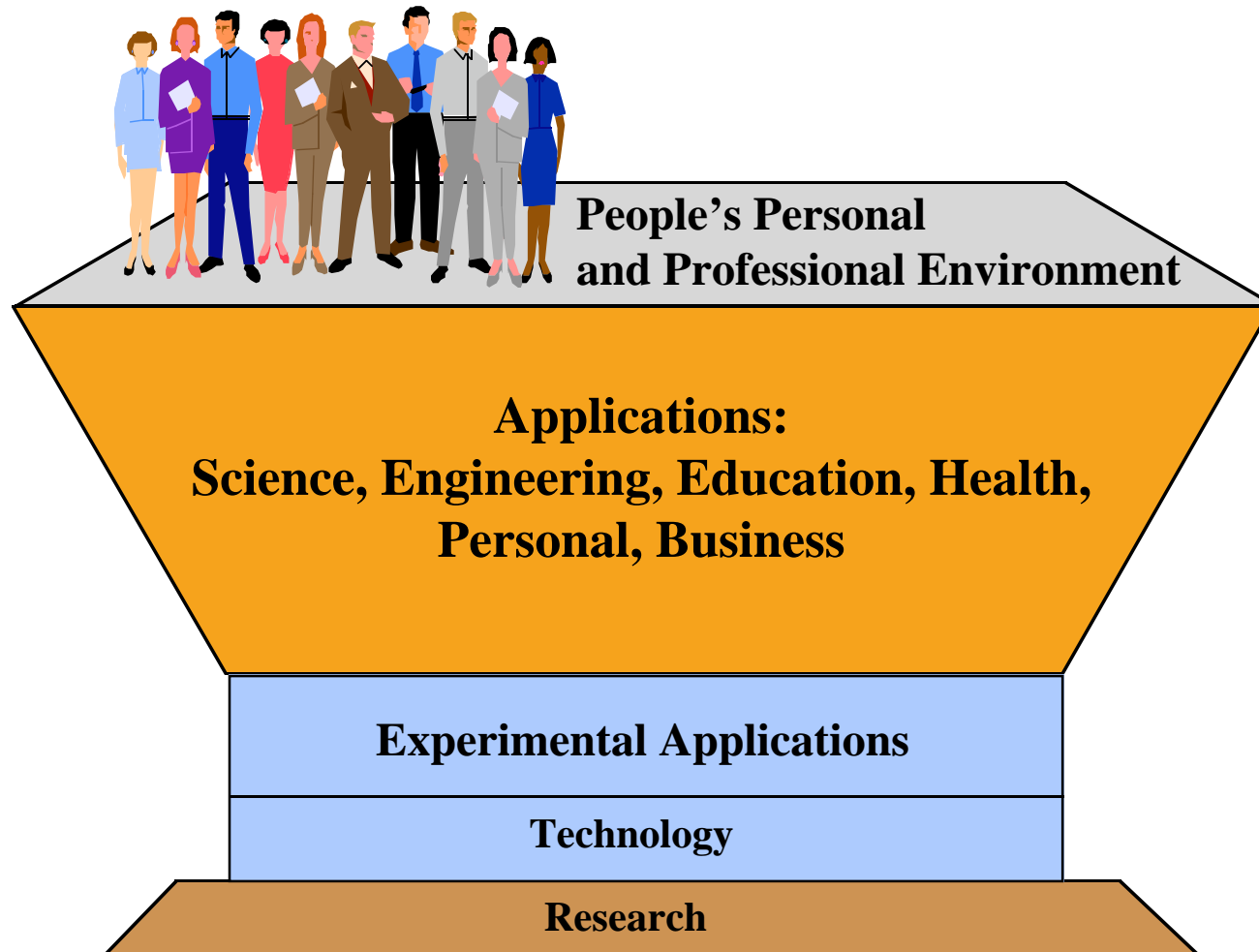


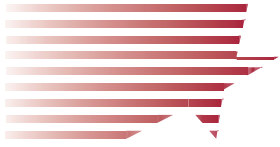
- Initiatives, programs, and the technology system environment are all related
  - The NGI Initiative is uniquely built upon the strength of Federal, academic, and industry investments
- 
- The NGI Initiative is critically important to our success in research, advanced infrastructure, Federal research management, partnerships with other sectors, and the Nation!





# **But We Are Really Impacting People!**

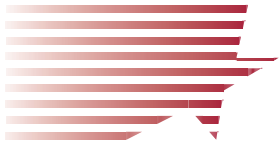




# Sectors Benefiting from NGI

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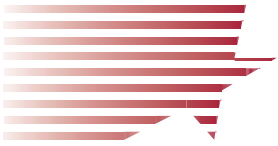
- Science and research
- National security
- Education
- Aerosciences
- Health care and Biomedicine
- Environment
- Crisis response
- Manufacturing



# NGI/Internet2 Relationship

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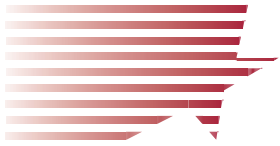
- Common vision - To leverage the power of new technologies and applications and realize the potential of the Next Generation Internet
- Complementary Efforts
  - NGI focus: Wide area advanced infrastructure, long term research at scale, enabling new paradigms of applications, leadership in government networking
  - Internet2 focus: Higher education campus connectivity, enabling research in higher education, leadership in higher education networking
- Partnering Opportunities
  - Joint development and testing of advanced network technologies, new applications, and quality of service metrics
  - Coordination of network connections for universities participating in both NGI and I2 - understanding the R&D risks and rewards earlier, rather than later
- NGI/I2 Interaction
  - Back-to-back presentations at Networking '97 and to the Federal Networking Council's Advisory Committee
  - Briefings to CCIC, NGI Workshop, etc.
  - Testimony before Subcommittee on Communications of the U.S. Senate Committee on Commerce, Science, and Transportation, June 3, 1997



# Government Role in NGI

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- Why should the Government be involved in the Next Generation Internet and partner with the academic and private sector?
  - NGI is beyond the scope of any one institution or sector. It demands multi-agency, academic, and industry input, discussion, and coordination.
  - Government long term R&D has a proven technology leadership track record with ARPANET, MOSAIC, NSFNET, and testbeds.
  - The Government has an opportunity to leverage its existing advanced networking programs.
  - The Government must support its own critical, time sensitive missions requiring next generation technologies. It needs to be at the leading edge NOW.
  - The U.S. Government leadership, in partnership with industry and academia, is needed to stimulate global technology research and development and to maintain U.S. technology leadership.

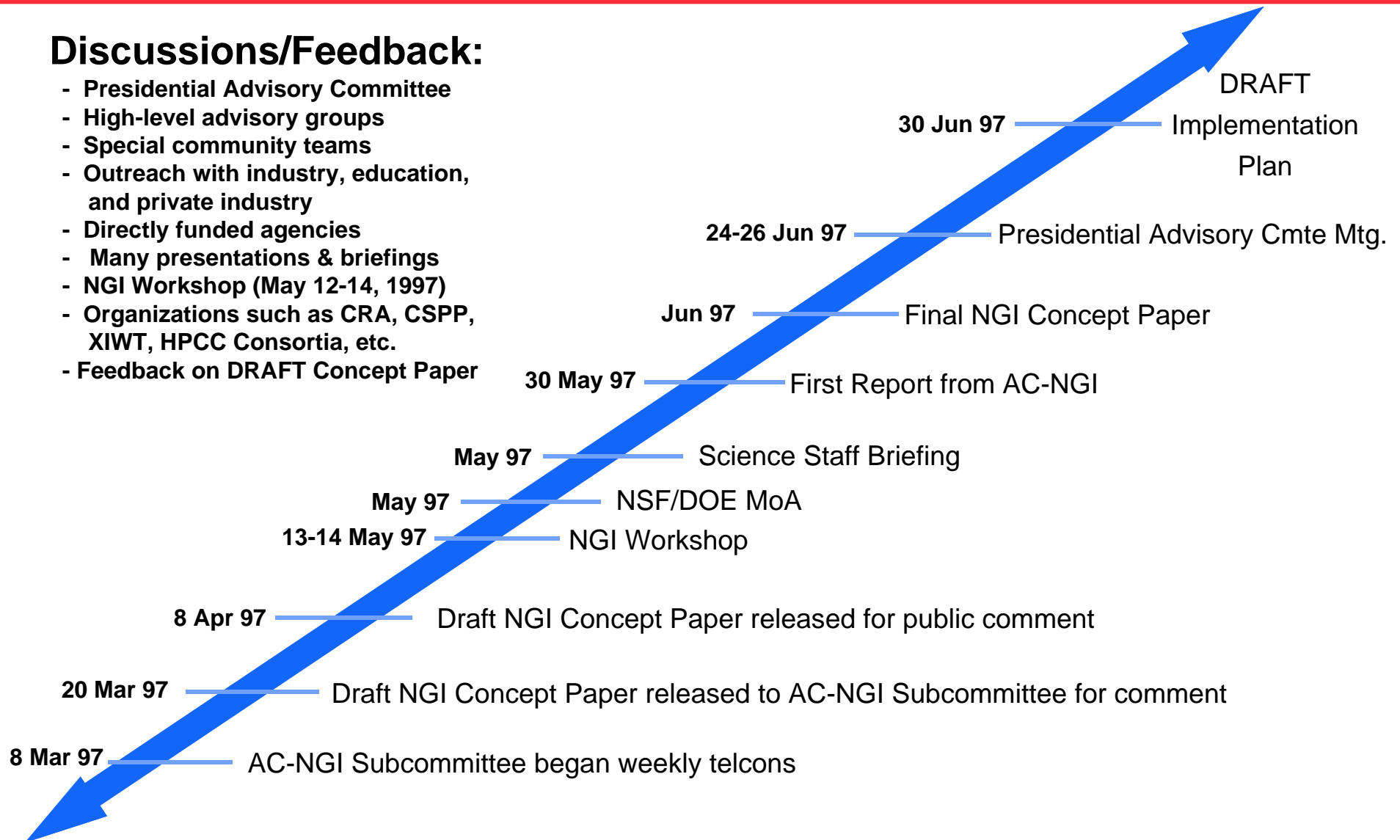


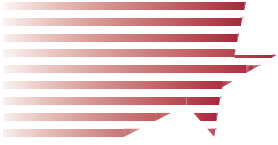
# Near Term NGI Activities

(June 13, 1997)

## Discussions/Feedback:

- Presidential Advisory Committee
- High-level advisory groups
- Special community teams
- Outreach with industry, education, and private industry
- Directly funded agencies
- Many presentations & briefings
- NGI Workshop (May 12-14, 1997)
- Organizations such as CRA, CSPP, XIWT, HPCC Consortia, etc.
- Feedback on DRAFT Concept Paper





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